24-Port Gigabit with 2 Shared SFP Managed Security Switch

High-Performance / Cost-effective / Telecom Gigabit solution for backbone of Enterprise and Networking of Data Center

The PLANET WGSW-24020 is a L2/L4 Full Managed Gigabit Switch. Since Gigabit network interface had become the basic equipment and requirement of Enterprises and Network Servers, the WGSW-24020 can handle extremely large amounts of data in a secure topology linking to a backbone or high capacity server with 48Gbps switching fabric. The powerful features of QoS and Network Security make WGSW-24020 to meet the needs of effective data traffic control for ISPs and Enterprises, such as VoIP, video streaming and multicast applications.

High Performance

The WGSW-24020 provides 24 10/100/1000Mbps Gigabit Ethernet ports with 2 shared Gigabit SFP slots. It boasts high performance architecture of switch that is capable for providing the non-blocking switch fabric and wire-speed throughput as high as 48Gbps, which greatly simplifies the tasks of upgrading the LAN for catering to increase bandwidth demands.

Robust Layer 2 Features

The WGSW-24020 can be programmed for basic switch management functions such as port speed configuration, Port aggregation, VLAN, Spanning Tree protocol, QoS, bandwidth control and IGMP Snooping. The WGSW-24020 provides 802.1Q Tagged VLAN, and the VLAN groups allowed on the WGSW-24020 will be maximally up to 256. Via aggregation of supporting port, the WGSW-24020 allows the operation of a high-speed trunk combining multiple ports, up to eight groups of maximum to 8-ports for trunking, and it supports fail-over as well.

Excellent Traffic Control

PLANET WGSW-24020 is loaded with powerful traffic management and QoS features to enhance services offered by telecoms. The functionality includes QoS features such as wire-speed Layer 4 traffic classifiers and bandwidth limiting that are particular useful for multi-tenant unit, multi business unit, Telco, or Network Service Provide applications. It also empowers the enterprises to take full advantages of the limited network resources and guarantees the best performance at VoIP and Video conferencing transmission.

Efficient Management

For efficient management, the WGSW-24020 Managed Ethernet Switch is equipped with console, WEB and SNMP management interfaces. With its built-in Web-based management, the PLANET WGSW-24020 offers an easy-to-use, platform-independent management and configuration facility. The PLANET WGSW-24020 supports standard Simple Network Management Protocol (SNMP) and can be managed via any standard-based management software. For text-based management, the WGSW-24020 can also be accessed via Telnet and the console port. For secure remote management, the WGSW-24020 supports SSL and SSH connection which encrypt the packet content at each session.

Powerful Security

PLANET WGSW-24020 offers comprehensive Access Control List (ACL) for enforcing security to the edge. Its protection mechanism also comprises of port-based 802.1x user and device authentication. The port-security is effective to limit the numbers of clients to pass through, so that network administrators can now construct highly secured corporate networks with time and effort considerably less than before.

Flexibility and Extension solution

The two mini-GBIC slots are compatible with 1000Base-SX/LX and WDM SFP(Small Factor Pluggable) fiber-optic modules. The distance can be extended from 550 meters (Multi-Mode fiber) up to above 10/50/70/120 kilometers (Single-Mode fiber or WDM fiber). They are well suited for using within the enterprise data centers and distributions.

Key Feature

Physical Ports

- 24-Port 10/100/1000Base-T Gigabit Ethernet RJ-45
- 2 mini-GBIC/SFP slots, shared with Port-12 and Port-24
- Console interface for Switch basic management and setup

Layer 2 Features

- Complies with the IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z Gigabit Ethernet standard
- Supports Auto-negotiation and half duplex/full duplex modes for all 10Base-T/100Base-TX and 1000Base-T ports.
- Auto-MDI/MDI-X detection for each RJ-45 port
- Prevents packet loss with back pressure (Half-Duplex) and IEEE 802.3x PAUSE frame flow control (Full-Duplex)
- High performance of Store-and-Forward architecture, broadcast storm control and runt/CRC filtering eliminates erroneous packets to optimize the network bandwidth
- 8K MAC address table, automatic source address learning and ageing
- 2Mbit embedded memory for packet buffers
- Supports IEEE 802.1Q Tagged based VLAN
- GVRP protocol for VLAN Management
- Private VLAN Edge (PVE) supported
- Supports up to 8 Trunk groups, and each trunk group can be up to maximum 8 ports with 16Gbps bandwidth (Duplex Mode)
- IEEE 802.1d, IEEE 802.1w, classic Spanning Tree Algorithm or Rapid Spanning Tree support
- Supports the IEEE 802.1s specification for multiple spanning trees on a single port (spanning tree by VLAN)
- Port Mirroring to monitor the incoming or outgoing traffic on a particular port

Quality of Service

- 4 priority queues on all switch ports.
- Supports for strict priority and Weighted Round Robin (WRR) CoS policies
- Supports QoS and bandwidth control on each port
- Traffic-policing policies on the switch port

Multicast

- Supports IGMP Snooping v1 and v2

Security

- IEEE 802.1x Port-Based Authentication
- IP-Based Access Control List (ACL)
- MAC-Based Access Control List
- Port Security

Management

- WEB-based, Telnet, Console Command Line management
- SSH(Secure Shell), SSL
- Accesses through SNMPv1, v2c and v3 security set and get requests.
- Four groups (history, statistics, alarms, and events) of embedded remote monitoring (RMON) agents for network monitoring and traffic analysis
- Built-in Trivial File Transfer Protocol (TFTP) client
- Virtual Cable Test (VCT) technology provides the mechanism to detect and report potential cabling issues on Copper Links, such as cable opens, cable shorts, etc..

Specification

Product	24-Port 10/100/1000Mbps with 2 shared SFP Managed Security Switch	
Model	WGSW-24020	
Hardware Specification		
Copper Ports	24 10/100/1000Base-T RJ-45 Auto-MDI/MDI-X ports	
SFP/mini-GBIC Slots	2 SFP interfaces, shared with Port-12 and Port-24	
Switch Architecture	Store-and-Forward	
Switch Fabric	48Gbps / non-blocking	
Switch Throughput	35.7Mpps	
Address Table	8K entries	
Share Data Buffer	2 Mbits	
Flow Control	Back pressure for Half-Duplex IEEE 802.3x Pause Frame for Full-Duplex	
Jumbo Frame	9K bytes	
LED	Power, Link/Act and speed per port	
Layer 2 Function		
Management Interface	Console, Telnet, SSH, Web Browser, SSL, SNMPv1, v2c and v3	
Port Configuration	Port disable/enable. Auto-negotiation 10/100/1000Mbps full and half duplex mode selection. Flow Control disable / enable. Bandwidth control on each port.	
Port Status	Display each port's speed duplex mode, link status and Flow control status. Auto negotiation status, trunk status.	
VLAN	IEEE 802.1Q Tagged Based VLAN ,up to 256 VLAN groups	
Link Aggregation	Supports 8 groups of 8-Port trunk support IEEE 802.3ad LACP	
QoS	Traffic classification based on Port Number, 802.1p priority, DS/TOS field in IP Packet	
IGMP Snooping	IGMP (v1/v2) Snooping, up to 32 multicast Groups	
Access Control List	IP-Based ACL / MAC-Based ACL Up to 256 entries	
SNMP MIBs	RFC-1213 MIB-2 RFC-2863 Interface MIB RFC-2665 EtherLike MIB RFC-1493 Bridge MIB RFC-2674 Extended Bridge MIB RFC-2819 RMON MIB (Group 1, 2, 3 and 9) RFC-2737 Entity MIB RFC-2618 RADIUS Client MIB	
Standards Conformance		
Regulation Compliance	FCC Part 15 Class A, CE	
Standards Compliance	IEEE 802.3	10Base-T Ethernet
	IEEE 802.3u	100Base-TX Fast Ethernet
	IEEE 802.3ab	1000Base-T Gigabit Ethernet
	IEEE 802.3z	1000Base-SX/LX Gigabit Ethernet
	IEEE 802.3x	Full-Duplex Flow Control
	IEEE 802.1p	Class of Service
	IEEE 802.1X	Port-Based Authentication
	IEEE 802.1Q	Tag-Based VLAN
	IEEE 802.1w	Rapid Spanning Tree
Physical Specifications		
Dimensions	430 x 350 x 44.5mm (W x D x H), 1U height	
Weight	3.3 KG	
Environment Specifications		
Operating	Temperature:	0 ~ 50 Degree C
	Relative Humidity:	20% ~ 95% (non-condensing)
Storage	Temperature:	-40 ~ 70 Degree C
	Relative Humidity:	20% ~ 95% (non-condensing)

Applications

Backbone Switch

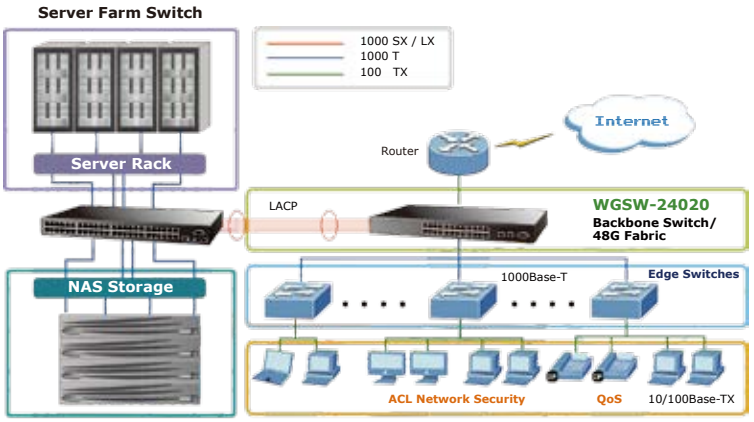
With up to 48Gigabits per second of non-blocking switch fabric, the WGSW-24020 can easily provide the high bandwidth required from now on. It can easily provide a local, high bandwidth and Gigabit Ethernet network for backbone of enterprises or Telecoms. With the two SFP ports, the WGSW-24020 provides the uplink to the edge network through Gigabit Ethernet LX/SX SFP modules.

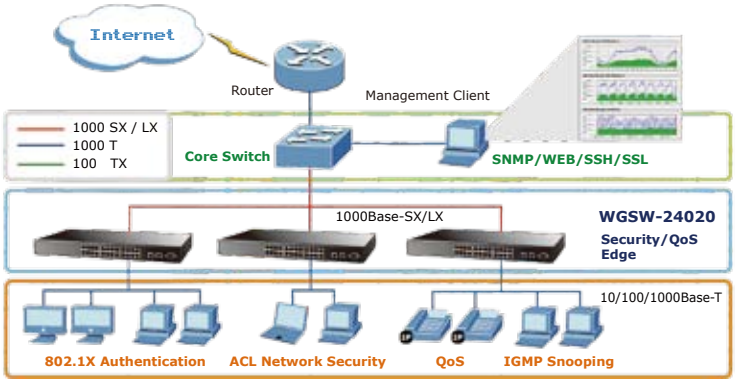
Server Farm Switch

Gigabit Ethernet supported had become a basic equipment of Enterprises and Network servers. The WGSW-24020 provides up to 24 Gigabit Ethernet ports. It is ideal to be used as a server farm switch connecting servers. With its port trunking function, an 8 GB fat pipe is provided for connecting to the backbone if required.

Department/Edge Security and QoS Switch

With the security and QoS features, it improves the network to be efficiency and protects the network clients. With the two SFP ports, the WGSW-24020 provides the uplink to the backbone network through Gigabit Ethernet LX/SX SFP modules. With the security, Multicast IGMP Snooping and QoS features, it also improves the network's efficiency and protects the network clients.





Ordering Information

WGSW-24020	24-Port 10/100/1000Mbps with 2 Shared SFP Managed Security Switch

Releate Product

WGSW-48040	48-Port 10/100/1000Mbps with 4 Shared SFP Managed Security Switch

Available Modules for WGSW-24020

MGB-GT	SFP-Port 1000Base-T Module
MGB-SX	SFP-Port 1000Base-SX mini-GBIC module
MGB-LX	SFP-Port 1000Base-LX mini-GBIC module
MGB-L30	SFP-Port 1000Base-LX mini-GBIC module-30km
MGB-L50	SFP-Port 1000Base-LX mini-GBIC module-50km
MGB-L70	SFP-Port 1000Base-LX mini-GBIC module-70km
MGB-L120	SFP-Port 1000Base-LX mini-GBIC module-120km
MGB-LA10	SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module-10km
MGB-LB10	SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module-10km
MGB-LA20	SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module-20km
MGB-LB20	SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module-20km
MGB-LA40	SFP-Port 1000Base-LX (WDM,TX:1310nm) mini-GBIC module-40km
MGB-LB40	SFP-Port 1000Base-LX (WDM,TX:1550nm) mini-GBIC module-40km

PLANET Technology Corporation
11F, No. 96, Min Chuan Road, Hsin Tien, Taipei, Taiwan R.O.C.
Tel: 886-2-2219-9518 Fax: 886-2-2219-9528
Email: sales@planet.com.tw www.planet.com.tw
VoIP Gateway: vip.planet.com.tw